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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,998	01/27/2006	Renaut Mosdale	285343US0PCT	9546
22850	7590	04/08/2008	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			MILLER, DANIEL H	
			ART UNIT	PAPER NUMBER
			1794	
			NOTIFICATION DATE	DELIVERY MODE
			04/08/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/565,998	MOSDALE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	DANIEL MILLER	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 26 May 2006.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 9-16 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/26/2006</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____.                         |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 10-12, and 14-15 depend from cancelled claim 1, claim 13 depends from cancelled claim 2, and claim 16 depends from cancelled claim 7. Therefore, their scope can not be determined.

3. Under MPEP section 702.01, applicants are urged to submit promptly, preferably within 3 months after filing, a preliminary amendment which corrects obvious informalities. The informalities should be corrected to the extent that the disclosure is readily understood and the claims to be initially examined are in proper form, particularly as to dependency, and otherwise clearly define the invention.

4. Since it would be improper for the examiner to speculate as to applicant's intended dependency of the claims they have not been treated substantively below.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Cariou (US 4,396,669).

7. Cariou teaches a carbon felt composed of carbon fibers and a layer of (glassy) vitreous carbon bonded to at least one surface (claim 1 ref.). The invention of Cariou provides one porous layer (carbon fibers) and one gas impervious side (vitreous carbon) that can be used for electrodes (such as fuel cells; column 1 line 7-12). A sandwich structure can be produced consisting of alternating layers of carbon fibers and vitreous carbon (column 1 line 30-35 and figures). The carbon fibers extend partially into the glassy carbon (claim1 reference).

8. The vitreous carbon layer is inherently bonded via a carbon-carbon bond to the carbon fiber layer because both are carbon bonded using a carbonized resin (see examples).

9. It is noted that even though claims 10-15 have not been treated it is believed if their dependency where changed to depend from claim 9 (for example) that the invention of Cariou would read on those limitations.

10. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Miwa (US 5,021,284).

11. Miwa teaches a carbon fiber gas permeable layer boned via a carbon based resin to a glassy carbon gas impermeable layer (column 5-6). Miwa teaches the invention can be employed as an electrode in a stacked formation (see figures and

abstract). The matrix layer (containing carbon fibers) can be attached to a catalytic layer 5a or 5b (active layer) having in the electrode stack (see figure 2; and column 8 lines 36-44).

12. It is noted that even though claims 10-15 have not been treated it is believed if their dependency where changed to depend from claim 9 (for example) that the invention of Miwa would read on those limitations.

13. Examiner's Note:

14. Claims 10-12, and 14-15 depend from cancelled claim 1, claim 13 depends from cancelled claim 2, and claim 16 depends from cancelled claim 7. Therefore, their scope can not be determined.

15. Under MPEP section 702.01, applicants are urged to submit promptly, preferably within 3 months after filing, a preliminary amendment which corrects...obvious informalities. The informalities should be corrected to the extent that the disclosure is readily understood and the claims to be initially examined are in proper form, particularly as to dependency, and otherwise clearly define the invention.

16. Since it would be improper for the examiner to speculate as to applicant's intended dependency of the claims they have not been treated substantively. However a full art search to the extent possible has been performed.

17. It is noted that even though claims 10-15 have not been treated it is believed if their dependency were changed to depend from claim 9 (for example) that the invention of Cariou or Miwa would read on those limitations.

18. Further, Sohda et al (US 5,433,937) teaches it is known in the art to produce carbon composites comprising carbon fibers using a needle punch technique (column 3 line 15-25), as claimed in claim 16. Claim 16 is noted as being dependent upon cancelled claim 7 so is not otherwise being substantively addressed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL MILLER whose telephone number is (571)272-1534. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571)272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel Miller

/KEITH D. HENDRICKS/  
Supervisory Patent Examiner, Art Unit 1794